

B. Claims

Please amend claims 1-4 and 7-16 as follows. A complete listing of all the claims appears below; this listing replaces all earlier amendments and listings of the claims.

1. (Currently Amended) An image printing method for completing a print process of each pixel by making a plurality of main scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising the steps of:

~~a step of~~ assigning, to a pixel of interest, a pattern used to determine which of the plurality of main scans is used to print ~~a dot~~ one or more dots having a single size to be printed for the pixel of interest; and

~~a printing step of printing a dot~~ the one or more dots on the pixel of interest in the main scan determined by the assigned pattern, ~~and~~

wherein the ~~assignment~~ assigning step includes a step of selecting one pattern from a plurality of patterns corresponding to each of density levels on the basis of a density level of the pixel of interest[[,]] and assigning the selected pattern to the pixel of interest.

2. (Currently Amended) An image printing method for completing a print process of each pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising the steps of:

~~a step of~~ assigning, to each pixel, a pattern which specifies the number of one or more dots having a single size corresponding to a density level of the pixel and

scans used to print the one or more dots having a single size.

3. (Currently Amended) An image printing method for completing a print process of each pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising the steps of:

~~an assignment step of~~ assigning a pattern, used to determine which of the plurality of scans is used to print ~~a dot~~ one or more dots having a single size to be printed for each pixel, to that pixel;

~~a generation step of~~ generating a pattern of print data corresponding to dots to be printed in each scan of the print head on the basis of the pattern assigned to the pixel; and

~~a step of~~ printing dots on each pixel on the basis of the generated ~~pattern~~ print data.

4. (Currently Amended) The method according to claim 1, wherein a plurality of patterns are prepared in correspondence with each of the density levels of the pixel, and in the ~~assignment step includes a step of~~ selecting step, one of the plurality of patterns corresponding to a density level of a pixel of interest is selected randomly or in a predetermined order ~~in accordance with the density level of the pixel of interest, and~~ assigning the selected pattern to the pixel of interest.

5. (Original) The method according to claim 1, wherein the plurality of main scans include both forward and backward scans of the print head, and a pattern

corresponding to a density level of a pixel which requires to print two or more dots is defined so that dots to be printed are distributed to both the forward and backward scans.

6. (Original) The method according to claim 1, wherein the plurality of scans include both forward and backward scans of the print head, and the pattern is defined so that dots to be printed are distributed to one of the forward and backward scans.

7. (Currently Amended) The method according to claim 3 1, wherein the plurality of patterns ~~corresponding to each of density levels that the pixel can assume~~ are assigned so that densities printed in forward scans become equal to densities printed in backward scans.

8. (Currently Amended) ~~An image printing~~ A print data generating method that generates a print data for completing a print process of each pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising the steps of:

~~a step of~~ assigning a pattern, used to determine which of the plurality of main scans is used to print ~~a dot~~ one or more dots having a single size to be printed for each pixel, to that pixel; and

generating the print data corresponding to dots to be printed in each scan of the print head on the basis of the pattern assigned to the each pixel.

9. (Currently Amended) ~~An image processing~~ A print data generating

method that generates a print data for completing a print process of each pixel by making a plurality of main scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising the steps of:

~~a step of~~ assigning, to a pixel of interest, a pattern used to determine which of the plurality of main scans is used to print ~~a dot~~ one or more dots having a single size to be printed for the pixel of interest; ~~;~~ and

generating the print data corresponding to the dots to be printed in each scan of the print head on the basis of the pattern assigned to the pixel of interest,

wherein the ~~assignment~~ assigning step includes a step of selecting one pattern from a plurality of patterns corresponding to each of density levels ~~that the pixel can assume~~ in correspondence with a density level of the pixel of interest, and assigning the selected pattern to the pixel of interest.

10. (Currently Amended) ~~An image processing~~ A print data generating method that generates a print data for completing a print process of each pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising the steps of:

~~a step of~~ assigning, to each pixel, a pattern which specifies the number of one or more dots having a single size corresponding to a density level of the pixel and scans used to print the one or more dots having a single size; and

generating the print data corresponding to the dots to be printed in each scan of the print head on the basis of the pattern assigned to the each pixel.

11. (Currently Amended) A printer for forming one pixel by one or a plurality of dots having a single size printed by a predetermined number of head scans[[,]] comprising:

a memory for storing one or a plurality of patterns, each of which indicates an order of scans that print dots having a single size for respective pixel values;

a generator for selecting one pattern from the one or plurality of patterns stored in said memory in accordance with a value of a pixel of interest, and generating binary data to be printed for respective scans; and

print means for controlling the head to print dots for respective scans of the head in accordance with the binary data.

12. (Currently Amended) An image recording apparatus for completing a print process of each pixel by making a plurality of main scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising:

a memory for storing a plurality of patterns, each of which specifies the number of one or more dots having a single size corresponding to a density level of a pixel[[,]] and scans used to print the one or more dots having a single size;

assignment means for selecting a pattern corresponding to a density level of a pixel of interest from the plurality of patterns stored in said memory[[,]] and assigning the selected pattern to the pixel of interest; and

printing control means for printing dots on the pixel of interest by the scan specified by the assigned pattern.

13. (Currently Amended) A computer program product recorded on a storage medium for making a computer generate data to be used in a printer for completing a print process of each pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising:

a code ~~of an assignment step of~~ for assigning a pattern, used to determine which of the plurality of scans is used to print ~~a dot~~ one or more dots having a single size to be printed for each pixel, to that pixel; and

a code ~~of a generation step of~~ for generating ~~a pattern of the data~~ corresponding to the dots to be printed for respective scans of the print head on the basis of the assigned pattern.

14. (Currently Amended) The program product according to claim 13, wherein the code ~~of the assignment step~~ for assigning includes ~~a step of~~ selecting one of patterns corresponding to a density level of a pixel of interest[[,]] and assigning the selected one pattern to the pixel of interest.

15. (Currently Amended) The program product according to claim 13, wherein a plurality of patterns are prepared in correspondence with each of the density levels of the pixel, and in the ~~code of the assignment step~~ includes a step of selecting, one of the plurality of patterns corresponding to a density level of a pixel of interest is selected randomly or in a predetermined order ~~in accordance with the density level of the pixel of interest, and assigning the selected pattern to the pixel of interest.~~

16. (Currently Amended) A computer program product recorded on a storage medium for making a computer generate data to be used in a printer for completing a print process of each pixel by making a plurality of scans of a print head, which prints dots on a print medium, with respect to the print medium, comprising:

a code ~~of a step of~~ for assigning, to each pixel, a pattern which specifies the number of one or more dots having a single size corresponding to a density level of the pixel and scans used to print the one or more dots having a single size; and

a code for generating the data corresponding to the dots to be printed for respective scans of the print head on the basis of the assigned pattern.